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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/069,096 | 11/13/2001 | Joachim Blum | FA-1035 | 7509 |

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E I du Pont de Nemours and Co
1007 Market Street
Legal patents
Wilmington, DE 19898

| EXAMINER | |
|---|---|
| FLETCHER III, WILLIAM P | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1762 | |

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/069,096 | BLUM ET AL. | |
| | Examiner | Art Unit | |
| | William P. Fletcher III | 1762 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *10-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see the amendment and response, filed 2/5/2004, with respect to the objections to the specification and claims, as well as the rejection of claim 16 under 35 U.S.C. § 112, 2nd Paragraph, have been fully considered in view of applicant's amendment and are persuasive. These objections and rejections have been withdrawn.

2. Applicant's arguments filed in the amendment and response of 2/5/2004, with respect to the prior art rejections set-forth in the Office action mailed 8/1/2003, have been fully considered but they are not persuasive.

Applicant argues: (a) that because Wade teaches an adhesive the reference does not anticipate applicant's claimed lacquer; (b) that because Wade teaches depositing a metal layer on the transparent substrate the reference does not anticipate applicant's claimed depositing of the lacquer directly on the substrate; and (c) that Yaver also fails to teach applicant's claimed depositing of the lacquer directly on the substrate.

With respect to (a), applicant's citations of the definitions of "adhesive" and "lacquer" are noted. To clarify, it is not the examiner's position that *all* adhesives are lacquers or *vice versa*. Rather, it is the examiner's position that the specific adhesive of Wade reads on a lacquer within the context of applicant's invention (i.e., according to the ordinary meaning of the term, since applicant has not explicitly disclosed any other meaning therefor). Applicant's definition of "lacquer" includes both protective *and* decorative coatings. The pigmented (i.e., decorative) adhesive layer of Wade forms a coating and, consequently, reads on a lacquer according to the ordinary meaning thereof.

Further, applicant's definition of "adhesive" requires only that such a substance be "capable of bonding." It is the examiner's position that, particularly in the multi-layer composite art, each lacquer layer bonds or adheres to an underlying substrate or lacquer layer as well as to an overlying lacquer layer; else, how could a stable, unitary composite be formed, without the delamination of one or more layers? Applicant's disclosed method (see claim 31) recites that "at least one opaque lacquer layer" is/are disposed upon the substrate. Since applicant's multi-layer composite is, presumably, a useful, unitary, multi-layer composite (i.e., the multiple lacquer layers do not delaminate due to a lack of adhesion or bonding between the substrate and/or one-another), it is the examiner's position that applicant's lacquer must be "capable of bonding other surfaces together by surface attachment." Consequently, since Wade's adhesive reads on a lacquer and applicant's lacquer reads on an adhesive — according to the ordinary meanings of these terms as made of record by applicant — argument (a) is not persuasive.

With respect to (b), the examiner respectfully disagrees. Applicant's attention is drawn to 4:66-5:6 where Wade teaches that the metallized layer is deposited in a pattern. This is also clearly illustrated in the Figures, where the metallized area is pattern 26a. Since the metallized pattern does not cover all of the rear face of the transparent substrate, there is direct contact between the adhesive and the substrate in those places not metallized. The claim does not require that there be direct contact between *all* of the lacquer coating and *all* of the substrate. Consequently, argument (b) is not persuasive.

With respect to (c), the examiner again respectfully disagrees. Applicant's attention is drawn to 3:61-62. While Yaver discloses many different embodiments, here the reference concludes: "The opaque layer may also be simply a painted or printed layer." It is the

examiner's position that this simplest embodiment anticipates the direct application of lacquer (paint) to the substrate. Consequently, argument (c) is not persuasive.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 10 – 12, 15 – 18, 20 – 24, 26, 29 – 31, 33, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Wade (US 5,532,045).**

Wade teaches a decorative vehicle trim part [c. 1, ll. 10 – 13]. The part comprises a transparent plastic material **20** having an external surface (the surface facing the viewer: the front face) and an internal surface (the surface facing the vehicle body: the rear face) [c. 3, l. 35 – c. 4, l. 22]. The internal (rear) surface is coated with a colored or pigmented adhesive **30** to match or complement either the interior or exterior colors of the car [c. 5, l. 54 – c. 6, l. 6]. The part is produced by applying the lacquer to the rear face of the material **20**.

It is the examiner's position that this colored or pigmented adhesive reads on applicant's claimed opaque lacquer layer of either a colored lacquer or effect-producing lacquer. Since applicant has not explicitly defined the term, the examiner has given it the broadest reasonable interpretation consistent with the common meaning known by one of ordinary skill in the art: "any of various clear or colored synthetic organic coatings that typically dry to form a film by the evaporation of the solvent" [*Merriam-Webster's Collegiate Dictionary, 10th Edition*, p. 650, attached]. Further, the film-forming adhesive components taught by Wade include some of the

film-forming lacquer components disclosed by applicant. Consequently, there is no evidence of record that the colored or pigmented adhesive coating of Wade is excluded by applicant's definition of the term "lacquer."

With specific respect to claims 11, 12, 23, 24, 26, and 29, Wade discloses an embodiment in which the transparent plastic material **20** may be a multi-layer coating such as polyvinylchloride (PVC) with an acrylic over-layer [c. 4, ll. 13 – 14]. It is the examiner's position that, in this embodiment, the PVC layer reads on the plastic material having front and rear faces and the acrylic over-layer reads on a transparent lacquer coating, yielding a transparent plastics film, disposed on the front face. Absent clear and convincing evidence to the contrary, it is the examiner's position that, within the context of applicant's disclosure, a cured transparent lacquer layer reads on a transparent plastic film and *vice-versa*.

With specific respect to claim 15, Wade teaches that the material **20** may be smooth or textrurized [c. 3, ll. 58 – 60].

With specific respect to claims 16 and 17, the rear face may or may not be optionally pre-treated [c. 4, ll. 50 – 55].

With specific respect to claim 20, the material **20** may contain silica (i.e., silicon dioxide) and the adhesive **30** may contain micronized titanium dioxide [c. 6, ll. 1 – 3].

With specific respect to claims 21 and 22, Wade teaches that the material **20** may comprise, for example, acrylic and/or polyester polymeric materials [c. 3, l. 65 – c. 4, l. 14].

With specific respect to claim 30, Wade teaches that the plastic molded part may be used as a vehicle part, especially a trim part form an automobile or truck body [c. 1, ll. 10 – 13].

With specific respect to claims 31 and 33, as noted above, the rear face of the material **20** may be pre-treated prior to the application of the adhesive **30** by application of a coating material [c. 4, ll. 50 – 56].

With specific respect to claim 35, the pre-treatment coating serves to promote adhesion [c. 4, ll. 50 – 56].

5. **Claims 10 – 12, 16 – 19, 21 – 24, 29 – 31, 33, 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Yaver (US 4,877,657).**

Yaver teaches a decorative vehicle trim part [abstract and c. 2, ll. 45 – 55]. The part comprises a transparent plastic core **11** having front and rear faces with an opaque lacquer layer disposed directly on the rear face and a transparent film overlay disposed on the front face [cc. 3 – 4].

With specific respect to claims 16, 17, 31, 33, and 35, the rear face may or may not be pre-treated with an adhesion-promoting primer prior to application of the opaque lacquer layer [c. 3, ll. 46 – 63 and c. 5, ll. 45 – 46].

With respect to claim 19, Yaver teaches that the plastic core **11** may contain dyes [c. 3, ll. 9 – 15].

With specific respect to claims 21 and 22, the plastic core **11** may be a polyester, acrylonitrile/butadiene/styrene terpolymer, or acrylic film [c. 3, ll. 2 – 15].

With specific respect to claim 29, Yaver discloses one particular embodiment in which a tinted transparent film is applied to the front face [c. 5, ll. 1 – 19].

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 13, 14, 19, 25, 27, 28, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wade (US 5,532,045).**

With respect to claims 13 and 14, the teaching of Wade is detailed above. Wade does not explicitly state, with respect to claim 13, that at least one of the faces has a smooth, high-gloss surface; or, with respect the claim 14, that the surface is the rear surface. Wade does teach that the plastic material **20** has a smooth surface unless it is treated to make it rough [c. 3, ll. 58 – 60]. Further, Wade teaches that the coating on the rear face matches the exterior colors of the car [c. 5, l. 66 – c. 6, l. 1]. It is well-known that the exterior finish of production automobiles is smooth and has a high gloss. Since Wade teaches that the plastic part is intended to be used as an exterior trim element, that it has a smooth surface, and matches the exterior paint of the car, it would have been obvious to one of ordinary skill in the art to provide the rear surface of the

plastic part with a smooth, high-gloss so as to match the smooth-high gloss coating of a production automobile.

With respect to claim 19, Wade does not explicitly teach that the material **20** contains at least one of dyes, absorption pigments in non-opacifying amounts, effect pigments in non-opacifying amounts, or combinations thereof. Wade does, however, teach that the material **20** may be tinted [c. 4, ll. 11 – 12]. Dyes are well-known means of tinting a polymeric material. Consequently, it would have been obvious to one of ordinary skill in the art to utilize dyes to tint the material **20**.

With respect to claims 34 and 36, Wade does not explicitly teach that the color and/or effect producing lacquer layer **30** has a thickness of 10 to 30 micrometers. It is the examiner's position that the thickness of Wade's adhesive layer is a result-effective variable, effecting the adhesion and thickness of the overall plastic part. Absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed thickness range, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable by routine experimentation [see MPEP § 2144.05(II)]. Alternatively, Wade teaches that the overall thickness of the part be at least 1 mil, preferably between 10 and 30 mils (at least ~25 micrometers, preferably between ~255 micrometers and ~760 micrometers). For the overall thickness to be in this range, the thickness of the adhesive would have to be an a range inclusive of applicant's claimed 10 to 30 micrometers.

With respect to claims 25, 27, and 28, While Wade does not explicitly teach the limitations of these claims, Wade does teach the further printing or other decoration of the material **20** according to techniques within the skill of the artisan [c. 5, ll. 45 – 52].

Consequently, based on this suggestion, it would have been obvious to one of ordinary skill in the art to do so.

9. **Claim 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Wade (US 5,532,045) as applied to claim 31 above, and further in view of Balloni et al. (EP 0 329 336 A2) or, in the alternative, in further view of Christopherson (GB 2 244 283 A).**

Wade teaches that the rear face of the material **20** can be treated to promote adhesion of a metallized layer thereto by either applying an adhesion-promoting coating or otherwise treating the rear face [c. 4, ll. 50 – 56]. Wade is silent with respect to specific methods of non-coating treatment. The metallized layer is commonly aluminum applied by vacuum deposition [c. 4, ll. 31 – 65].

Balloni teaches flame treating a polymer film prior to the vacuum deposition of aluminum to improve the adhesion thereof to the film [abstract]. Further, Christopherson teaches the corona treatment of a polymer film prior to the vacuum deposition of aluminum to improve the adhesion thereof to the film [abstract and p. 4, para. 4].

Since Wade is silent as to the particular means of pre-treatment, one of ordinary skill in the art would have looked to the prior art for suitable techniques. Consequently, it would have been obvious to one of ordinary skill in the art to modify Wade in view of Balloni so as to flame-treat or Christopherson so as to corona-treat the material **20** so as to promote the adhesion of the vacuum metallized layer of aluminum thereto. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully promoting adhesion of the metallized layer.

10. **Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaver (US 4,877,657).**

Yaver does not explicitly teach that the color and/or effect producing lacquer layer **30** has a thickness of 10 to 30 micrometers. It is the examiner's position that the thickness of Yaver's opaque lacquer layer is a result-effective variable, effecting the adhesion and thickness of the overall plastic part. Absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed thickness range, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable by routine experimentation [see MPEP § 2144.05(II)].

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WPF 5/10/2004

William P. Fletcher III
Examiner
Art Unit 1762

SHRIVE P. BECK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700